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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,522	05/17/2005	Guy LaTorre	13804-90	3024

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EXAMINER	
NATHAN, SHYAM	
ART UNIT	PAPER NUMBER
1611	
MAIL DATE	DELIVERY MODE
01/08/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/506,522	LATORRE ET AL.	
	Examiner	Art Unit	
	SHYAM NATHAN	1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on *09 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *03/10/2005,04/01/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-34 are pending in this Office Action. This is the first Office Action on the merits of the claims.

Priority

The earliest effective US filing date afforded the instantly claimed invention is 03/07/2002, the filing date of application 60/362,359.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-9,11, 14-18,20-23,26-29,31-33 are rejected under 35 U.S.C. 102(b)) as being anticipated by Schott et al. (WO 01/072262; issued Oct. 4, 2001).

Claims 1-9, 11, 14-18,20-23, 26-29,31-33 are drawn to a method for treating hair comprising applying a bioactive glass composition in an effective hair-enhancing amount to the hair for a sufficient time to form a coating o the hair comprising silicon, calcium and/or phosphorous ions.

Schott teaches a method for the treatment of hair comprising a bioactive glass composition in an effective hair-enhancing amount to the hair in such formulations as shampoo, hair detangler, hair mouse, hair gel etc.... (pages 71-77, Ex 11, Ex. 12). Regarding claims 1,9,15,31, the invention of Schott utilizes bioglass preferably between 40-96% by weight of silicon dioxide (SiO_2), between about 0 -35% by weight of Sodium oxide (Na_2O), between about 4-46% by weight calcium oxide (CaO), and between about 1- 15% by weight phosphorus oxide (P_2O_5) and can be found up to 95% of the total composition. Wherein, the bioactive glasses are silicon dioxide based compositions capable of forming hydroxycarbonate apatite (HCA) (page 3, lines 1—12), which meets the limitation of claim 23.

Regarding claims 4, 5, 22, the pH can be in the range of 3-9, as cited in the initial and 24 hour pH values for examples 11-13, which are drawn to hair shampoo with bioactive glass (pg 78)

Regarding claims 6-9, 28, 29, the non–interlined bioglass is preferred for many embodiments and the size is preferably less than about 90 microns, 20 microns, 5 microns and more preferably less than 2 microns (page 5, lines 1-10),

Regarding claim 26, the invention by Schott can improve curl retention, shine and strength as cited in pages 71-77.

Regarding claims 17, 18 Schott teaches a method of hair treatment wherein the hair treatment is in formulations as shampoo, hair detangler, hair mouse, hair gel etc.... (pages 71-77). Furthermore, Examiner notes that it is well known in the art that one applying shampoo/conditioner to the hair would rinse it off with water, and one applying hair gel/mousse would leave the product in the hair.

Regarding claims 20-22 and 27, the composition taught by Schott can further comprise perfumes dyes surfactants, skin active agents etc... that are used in hair shampoos/conditioners or hair gel/mousse products that are listed from pages 71-77 of the prior art.

Schott anticipates the above claims because Lee provides two specific examples comprising bioactive glass in hair shampoo (pg 77) and hair gel (pg 76). The term hair shampoo provides the method for treating hair is implicit. Shampoo is applied to the hair and since applicant has not defined 'sufficient time', the washing procedure would read on sufficient time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 10, 12, 13, 19, 24, 25, 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schott (WO 01/072262; issued Oct. 4, 2001).

Instant claims 12 and 13 are drawn to instant claim 1 wherein the hair is human hair and damaged hair.

Schott teaches that regarding claims 12, 13 and 33, the hair can be human hair as the invention applies to hard and soft human tissues (page 10, lines 15-21) and the human hair could be damaged such as tangled hair or dry hair (as cited above) ,which could be caused by chemical and/or environmental factors such as chlorine(swimming pool) and weather. Furthermore, the invention by Lee can improve curl retention, shine and strength as cited in pages 71-77.

Although Schott suggests the use of the composition to damaged human hair it is not immediately envisaged and therefore the rejection is made under obviousness.

However, it would have been obvious at the time the invention was made to use the composition of Schott for damaged hair because Schott suggests such a use in hair

formulations. One would be motivated to apply the composition of Lee to damaged hair to enhance the strength of the hair.

Regarding claim 10, although Schott does not disclose the coating thickness value, it would be obvious to one of ordinary skill in the art at the time the invention was made to optimize the thickness according to the irregularity of the surface one is coating. This could apply to the irregularities on the surface of damaged hair.

Although Schott does not teach a method of using a composition comprising the specifically claimed concentration of the bioactive glass composition for coating at about .1 to about 5 microns thick, absent evidence to the contrary, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to have optimized the thickness for surface irregularity on damaged hair. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235.

Regarding claim 30, the non–interlined bioglass is preferred for many embodiments and the size is preferably less than about 90 microns, 20 microns, 5 microns and more preferably less than 2 microns (page 5, lines 1-10), which can read on less than about 1 micron. *In cases involving overlapping ranges, the courts have consistently held that even a slight overlap in range establishes a prima facie case of obviousness.* In re Peterson, *65 USPQ2d 1379, 1382 (Fed. Cir. 2003).*

Claims 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schott (WO 01/072262; issued Oct. 4, 2001) in view of Donnelly et al (US patent 5,041,286; issued Aug. 20, 1991).

Instant claim 34 is drawn to the method of claim 23 wherein the hair is dog or cat hair.

Schott teaches a method for the treatment of hair comprising a bioactive glass composition in an effective hair-enhancing amount to the hair in such formulations as shampoo, hair detangler, hair mouse, hair gel etc....

But Schott does not specify human hair so it can be inferred that Lee composition can be applied to dog or cat hair, especially in view of the teachings of Donnelly.

Donelly teaches of a process of reconfiguring keratin fiber, wherein the keratin fiber can be human hair or dog's hair or any other suitable sources (Abstract and column 2, lines 55-60).

It would be obvious in the art at the time the invention was made to take the composition of Lee and apply it to dog hair because dog hair is a keratinous material/substance, just as human hair and/or any type of animal hair. One would have been motivated to do so because if the composition of Lee can be applied to human hair, then it could obviously be applied to any keratinous substance, including dog hair, as taught by Donelly.

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976). In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a). From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHYAM NATHAN whose telephone number is (571)270-5753. The examiner can normally be reached on Mon-Thurs 8:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SN

/Sharmila Gollamudi Landau/
Supervisory Patent Examiner, Art Unit 1611